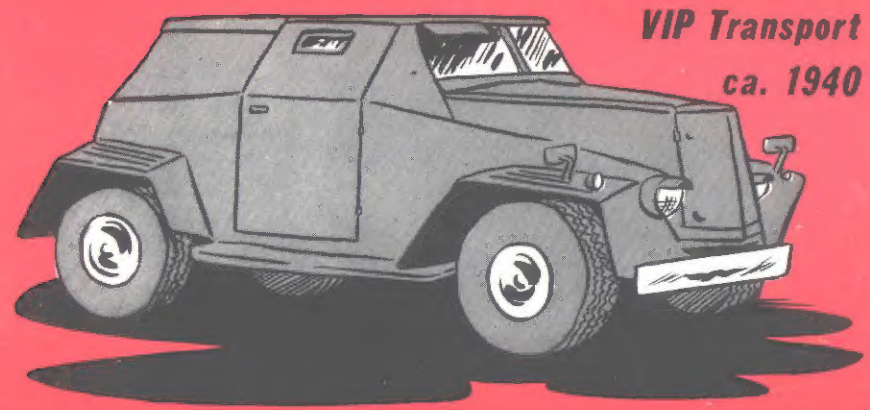
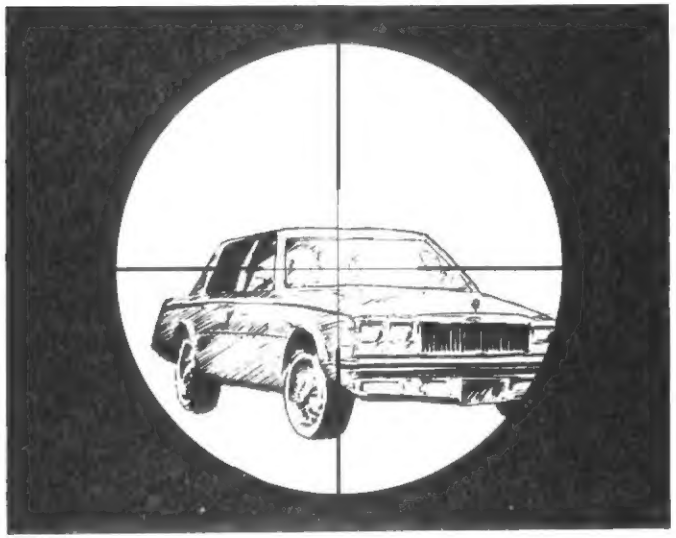
THE TRAPPING AND DESTRUCTION OF EXECUTIVE ARMORED CARS

JOHN A. MINNERY



British Humber VIP Transport ca. 1940

The Trapping & Destruction Of Executive Armored Cars



by

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Introduction

The very idea of armored vehicles for executives is by and large a symptom of the 1970's and a result of the worldwide wave of terrorism directed against the true seats of power in the capitalist system: the executive officers of the corporation giants.

Armored limousines have been touted as an answer to this problem and with a superficial first glance, harried executives and their security staffs have jumped at this solution and wallow in the protective environment of an automobile equipped ". . . just like the President's . . . ".

Here is the crux of this presentation: The false sense of security of an armored limousine engenders and the concommitant dropping of guard places the targeted executive in perhaps greater danger than if he continued to drive his Volkswagon to the office.

The defenses that current commercial armored automobiles offer can be circumvented by determined attackers and the following pages will attempt to show how.

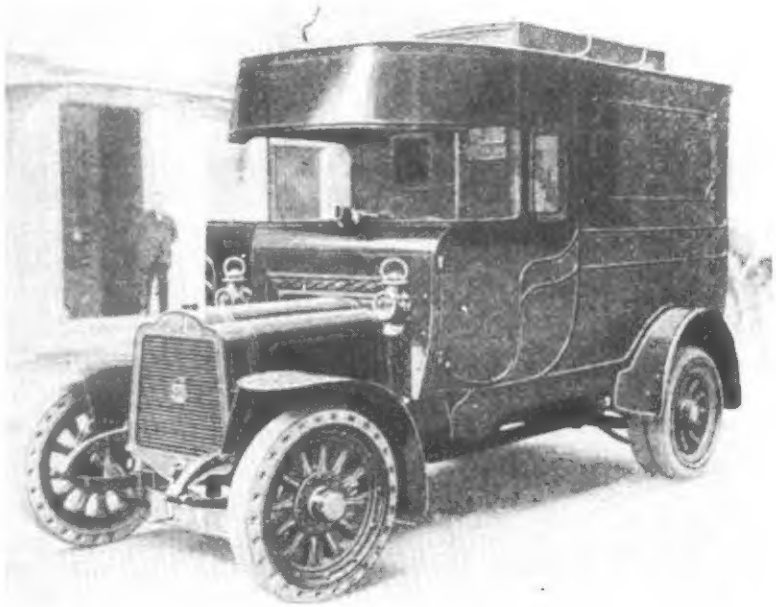
Do not consider the explaining of these techniques to be malicious, but the exact opposite. It is being benevolent showing the methods terrorist and extortionist groups will employ against corporate and government senior executives.

At the end of this presentation will be found specific and innovative approaches to the design and function of armored cars and suggestions on how to improve the protection of the transported VIP.

Discussion One:

The Nature Of The Beast

Armored executive vehicles were a direct outgrowth of the armored bank messenger cars and the military armored cars of the First World War. Their use in the Twenties was confined mainly to the notorious Prohibition gangsters in America and the Nazi gangsters of the next decade in Germany.



One of the first commercial armored cars (circa - 1913 - Paris - France). This "Vault Vehicle" was used for transferring bank funds. Forerunner of A.P.C.'s. Photo: courtesy of Caisse National.

To attack political figures in cars has become de riguer in terroristic circles and indeed the car has presented many opportunities and much success in this regard. What began with the assassination of Tsar Alexander being blown apart in his carriage, continues to this day. Archduke Ferninand[1], King Alexander of Yugoslavia, Pancho Villa, Count Bernadotte, Trujillo and of course, President Kennedy were all killed co-incidentally in cars. Attempts are too numerous to mention, but the assault on DeGaulle springs to mind and there were attacks on Hitler in the Thirties (he was reported to have lost his chauffeur, Julius Schreck, to assassins bullets and a bomb thrown at him, landing in Streicher's car instead).

Hitler shown riding in armored Mercedes with hat over chest area. Some speculation is given as to whether his hat contained some form of armour plate. Author's photo.

With so many attacks it is only natural for the politicos to want the increased protection of armored vehicles. Hitler's car was a supercharged Mercedes, which sat seven, weighed five ton, could cruise at a hundred miles per hour and was heavily armed and armored. It was an open car and high speed was its main defense. It has often been speculated that Hitler's forage cap was in fact a cleverly designed bullet proof helmet and his habit of placing it over his heart and chest when reviewing crowds from his car was more than just an affectation.

Armored Motorcycles of the Italian Police (Carabinieri). Photo by Wide World Photos.

The protection offered by modern armored executive vehicles has moved away from the heavy weight cars of armor plate and high density materials. The new ceramics, plastics and nylons are lighter, easier to obtain and adaptable to the different configurations of the various model cars. Where heavier armor is desired an aluminum substitute can be found. The undercarriage gets a special skid plate of armored steel to thwart small mine and grenade attacks. The tires are of the run flat variety and the glass surfaces are of course bullet resistant.

The cars are air - conditioned not only for the comfort of the passengers, but to create an over pressure atmosphere to thwart gas and smoke attacks. There are also alarms and sirens, two - way radios, electified chassis, tear gas projectors and smoke generators. Some cars have pistols and small arms ports and built - in anti - personnel devices, such as claymores have been alluded to. There is available as an option of a radar that detects incoming small arms fire and its source of direction. The fuel tanks are in nacelles that are based on those in jet fighters, which are "explosion proof." (Resistant, I.E.).

There are different grades of protection available depending on how the protective staff visualize the threat. The basic protection will defend against pistol and sub - machine gun assualts.

The advanced protection will thwart even light machine gun and automatic rifle fire, and small explosive charges.

Such an array of protective devices should be defense against even the most determined of terrorists and assassins. Political kidnapping should be a thing of the past. Such is not the case.

[1]London Daily Mail, June 29, 1914, says Ferdinand wore ballistic cloth armored vest: He was shot in the head . . .

Discussion Two:

Limits Of Protectability

Upon examining the armored executive vehicle certain flaws in design and chinks in the armor are noticed.

A. Bullet Resistant Glass means exactly that, it is resistant rather than proof. A concerted attack on this glass affecting the compressive, flexural, tensile, shear and impact properties and the stresses of elasticity and elongation and finally yield strength will result in a breaching of this defense.

1. By lowering the ambient temperature of the glass the impact strength will be much decreased. This can be accomplished by means of freon sprays that will sublimated against the glass weakening it and making it susceptible to shot gun blasts or axe and sledge blows. In deed, there is evidence that this glass will fail even under normal circumstances when treated in this manner, but the spray and whacks technique should be used to ensure success.
2. The thicker the glass, the lower the tensile strength and this can be further weakened by a Hilti Gun loaded with concrete tempered nails leaving a way clear for implosion of the glass by the means already alluded to in 1 above.
3. The glass is mounted in the cars using current state of the art body working techniques, which means that highly accurate rifle and pistol fire must be directed at the moulding and to penetrate the relatively thinner sections of panel and non - resistant rubber weather strip. There is an excellent chance of the bullets bypassing the armor and entering the interior by penetrating these garnish and rubber mouldings. By attacking these points of attachment around the ve-

hicle rather than directing fire at the occupants, the ricocheting bullets will find the targets anyway and the glass may be popped with wedges or crowbars to finish the job.

4. Current defense philosophy presumes that bullets will be directed in a hail or spray of fire and this is deflected by the bullet resistant glass. What is not expected is that multiple hits will be sustained at a specific point in a whittling away manner. The cumulative effects of such precise firing will be eventual penetration and this is to be aimed for.

While I have used the term glass throughout this discussion, it must be realized that this armor glass is really a laminate of glass and plastic somewhat like standard windshield glass. It can be expected to be effective in preventing standard attacks against it which is why we have to move into the realm of the bizarre to combat this defense.

The panels of the cars examined are lined with Kevlar - type nylon ballistic cloth sometimes backed with lightweight aluminum armor, sometimes not. Kevlar will turn and deflect and slow down bullets trapped in its mesh and is effective deterrent against penetration. Attacks are therefore to be directed at the points of attachment of this fabric at the door frames where there is considerable space and built - in gaps to allow for proper function of the doors. Rifle fire directed at the header frame of a door for example has a good chance of penetrating the compartment.

Ball ammunition should be used and carbide core bullets are preferred to all others. Once the entrance is made a switch to anti - personnel hollow cores can be made.

A typical rig would be the .303 British Enfield service rifle firing armor piercing ".303 INCH W. MkI" ammunition with a cup discharger type grenade launcher attached. The weapon would be placed against the car and fired. Any splash would be contained in the cup and the tungsten - carbide core would penetrate the car frame. Several rounds may have to be fired in extreme cases to tear up the fabric and ceramic armor , but entry can be effected in this manner. A pro-

jectile once inside the car would bounce off the armored glass like a ball in a squash court and such actions would be detrimental to the occupants.

Armor piercing ammo is currently available commercially and can be jury rigged by any team member effecient in hand loading ammo. Carbide tips are used extensively in industry and can be modified into cores for jacketed bullets.

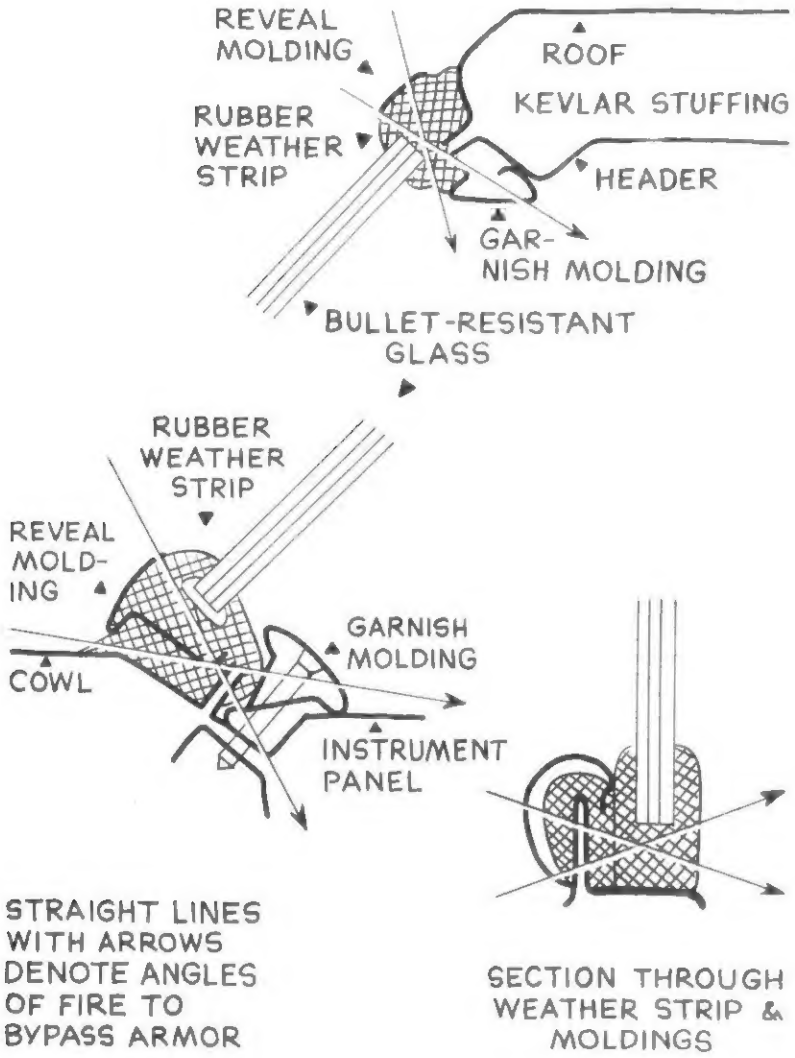
The armored executive vehicle is a car when all is said and done and entrance into them is possible by tearing out the door locks with parrot - nosed vise grips, drilling with portable battery operated drills, and Locksmith opening tools like the Slim Jim, which enters between the glass and outside panel to unlock the door by disengaging the lock mechanism by pushing down or lifting up with the tool.

With the door open the result is a debacle for the occupants and all the armor in the world would not save them. Doors equipped with electric mechanisms can be opened by using a Gigli saw to short the electric cable running from the door to the dash by looping it through the hinge side of the door midway between the hinges. This shorting process will also cause the electric windows to roll down. The ends of the saw should be insulated and the cable is sawed into by working the wire blade in a to - and - fro fashion.

The roof armor in these vehicles is weaker (thinner) than the body and should be attacked from vertical angles to penetrate with rifle fire. Once holed the vehicle is opened to gasoline and flame attack from this location. If the occupants do not open up they will be suffocated by the fumes of combustion. Other attacks will be gone into more detail later.

In short the armored executive vehicle is a sham; it is neither a tank nor armored personnel carrier, its weaknesses are built in due to the large glass surfaces and the limits of passenger vehicle design. It offers a minimum modicum of protection and should be considered as a high risk both in the capital expended for it and to the executive it purports to protect.

WEAK POINTS IN GLASS MOUNTING — COMMERCIAL ARMORED VEHICLES.



Discussion Three:

The Stalk

It will be assumed that the target vehicle will have a daily routine that takes it from a place of accomodation to occupation and back again in fairly regular routine. Likewise certain informal evening sojourns will also occur on a semi - regular basis to visit acquaintances at clubs and parties, etc. Weekends tend to be similarly orchestrated. Patterns will develop after a time and even if the target vehicle varies its comings and goings and takes different routes to prevent attacks the final destinations will become established and the Stalking Team can develop a strategy for the Stopping Team to consider.

Initially after the target has been selected it will be necessary to gather as much information about the vehicle and its routes as possible and this process could take upwards of three months. The first term will be investigative, the second formulative and the third term is used to confirm the action to be executed.

Following the target vehicle need not be a bumper to bumper tail as such action is bound to be picked up by the protective staff. Indeed they are trained to spot cars and note licenses of vehicles that appear to wend their way after them. The process of stalking should proceed in a leisurely manner with the car being followed a few blocks at a time and then turning off or pulling over and waiting for them at the same spot the next day to resume the stalk a few more intersections. To vary the stalk by leading them rather than following them down the streets on later days as the route begins to take shape.

Strict notes as to times and tracing on the city maps should be taken and a tape recorder would come in handy here.

The vehicles of the stalking teams and the stalkers themselves should be rotated to preclude being blown.

Bumper beepers might help to track the vehicle, but the protective staff will be on the lookout for such items and if discovered will only serve to alarm them.

If the car is extremely difficult to follow through a congested city it might be possible to man the observation decks of high - rise buildings along the likely routes and observe the movements of the car through the core area for several blocks at a time.

Following at night is somewhat risky in that closer contact must be maintained. It might be possible to find an opportunity to crack the crystal of the target car's tail light or to knock it out with a pellet rifle to facilitate spotting the vehicle through night traffic. The pros and cons of such action should be left up to the team members.

The Stalking Team will have fo find out as much as it can regarding the fuel capacity and performance of the car and take note of service stops made and maintenance procedures practiced. The character and diligence of the protective staff should be closely scrutinized and the effectiveness of the chauffeur and bodyguards as opponents will be of paramount concern.

Photos should be taken of the car at various angle with a view to assessing the thickness of the glass, the location of locks and handles and switches and spotlights; sirens and dash flashers if they exist. Pistol ports and gun racks and scabbards within the car might be observed in walk - bys on a one - time basis per member of the team.

The Stalking Team should, when all the foregoing information has been collected be able to advance positive suggestions to the Stopping Team as to most likely ambush points. Generally these will occur just after leaving or prior to arriving at the target cars routine destinations. The car may take whatever evasive tactics it will in moving from point A to B, but it must eventually leave at point A and arrive at point B. The choices open to the chauffeur are narrowed considerably at these locations and Stopping and Assault Teams can be massed there.

Stalking is essentially an intelligence function and all the techniques of intelligence come into play. This may include

the use of paid informers and inside men or simply reading the society page of the newspapers to keep up with the comings and goings of the hoy - poloy in VIP circles.

The armored car being a car might be stolen just like any other and a $125,000.00 vehicle is just as likely to be ripped off as any other especially if it sports factory locks. (Most do).

The Stalking Team would arrange to have the car stolen and thus force the Target to use a conventional vehicle for a piece and so make him considerably more vulnerable for assault. The stolen car meanwhile is stripped down with a view to assessing its defenses and specific lines of attack can be noted when weak spots are uncovered. The vehicle may then be allowed to be recovered if immediate assaults are not contemplated to lull the protective staff back into an ephemeral sense of security.

It might alternatively be possible to steal a similar car from another untargeted individual with a view to the same ends and as this fellow may have considerably lesser staff protection his car would serve as a basis for attacking the Target.

Discussion Four: Stopping Team

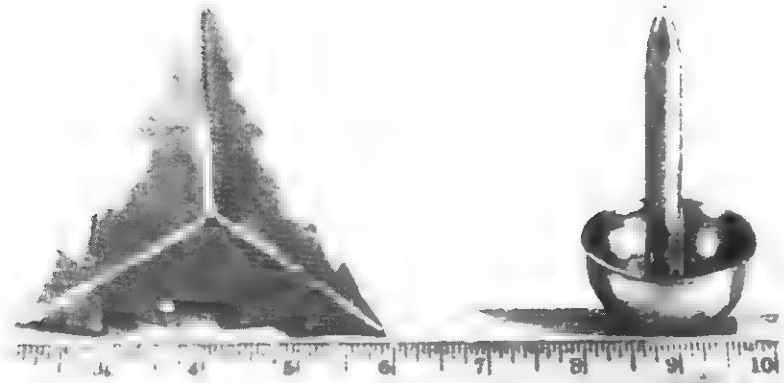
To go about stopping the 10,000 lb. bulk of an armored vehicle traveling at speeds in excess of 30 mph is an undertaking not to be lightly entered into.

The first thing to be stricken from consideration is any hope of stopping the car through gunfire alone. Even unarmored vehicles have a chance of penetrating the fulisade of ambush, as auto tires don't immediately deflate or blow like you see on T.V. when penetrated by small arms fire. The tires maintain enough losing pressure to proceed upwards of another quarter mile before flatting out. Of course if the rim is penetrated on tubeless tires, then air does escape rather quickly. A special caltrop which is hollow tubing sharpened to a spike point is also effective against self - sealers. The trend is to "run - flat" types of tires and this militates against any actions against the tires proper.

Armored executive vehicles are equipped to ram their way through hasty road blocks so it is necessary that certain steps be taken to prevent this from happening.

The easiest tactic to take against these vehicles depends a great deal on circumstances and place of ambush, and as such, like many of the following suggestions must be considered academic. The stringing of an arresting cable across the road, securely stalked and positioned in such a way as to catch the car without allowing it to over - ride or lift it over the vehicle. The cable should be previously tested against a vehicle of equal weight in dry runs and an idea of adequacy can be acertained. Hawser line or bridge cable may be the best choice, chain link fence or nylon netting might also be effective in some circumstances.

Armored executive vehicles are perhaps best attacked by other vehicles of similar heavy weight and arrangements should be made to block the road with tractor trailer rigs, heavy construction vehicles - even fire engines could be built



Self-righting "Tire Tacks" developed during WWII. These were scattered over roads and airfields. The upholstery-type tack has lead in the cup to keep it upright. USAAF photo.

Hollow caltrop was designed to be used against self-sealing tires during World War II. USAAF photo.

into a scenario requiring the presence of a phony emergency crew in a set - up designed to trap the target car.

Traction denial can be provided by spilling oils, greases, and soaps on the road which could seriously crimp the efforts of the driver to avoid the ambush.

Depending upon how serious an event is contemplated, the vehicle once stopped, can be restrained by chocking the wheels, or jacking up the vehicle from behind with car jacks or a forklift equipped pick - up truck. If the occupants desire to sit tight then the rear tires could be removed to ensure that further locomotion will not take place.

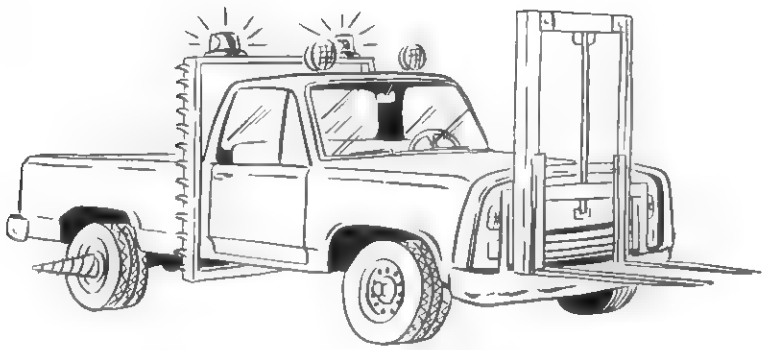
Alternatively lag bolts could be screwed previously in the road bed and hooked chains attached to the car to tie it down for the Assault Team.

Immediately after, or perhaps concurrently with the vehicle being brought to a rest, pails of black paint or asphalt filler should be thrown at the windows of the car to blind and confuse the occupants. A Faraday shield of fencing might be attached to prevent radio communication or a high - voltage attached to the car's frame to knock - out electrical and electronic elements.

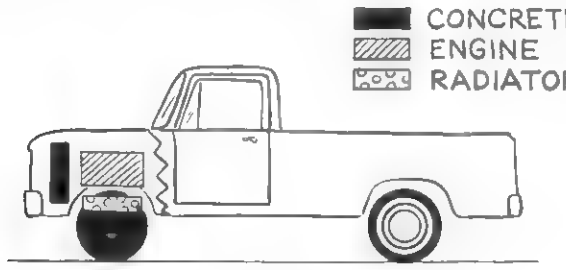
Night - time attacks could be set up at a bend in the road with high - intensity search lights switched on to blind the driver as he slows for the turn. An expedient of a frame of mirror tiles could be constructed of large proportions to give the driver the illusion of driving into another vehicle. By setting some headlights on a hurdle across the road a similar effect can be staged. Follow - up techniques must still be used such as concetina barb wire draped loosely all over the road in a series of mattresses and coils would allow for the vehicle to proceed a short distance before becoming hopelessly enmeshed in the coils of wire. The barbs of the wire enter the tires and are thrown up around and about the axles and running gear and will bring the vehicle to a tangled stop.

An ideal weapon against the vehicle would be a heavy tow - truck such as the kind used to move heavy trucks and tractor rigs. The tow - truck is usually equipped with a beefed - up front bumper to facilitate pushing other vehicles and this could be used to good effect against the ram of the

ASSAULT TEAM 4WD CREW TRUCK

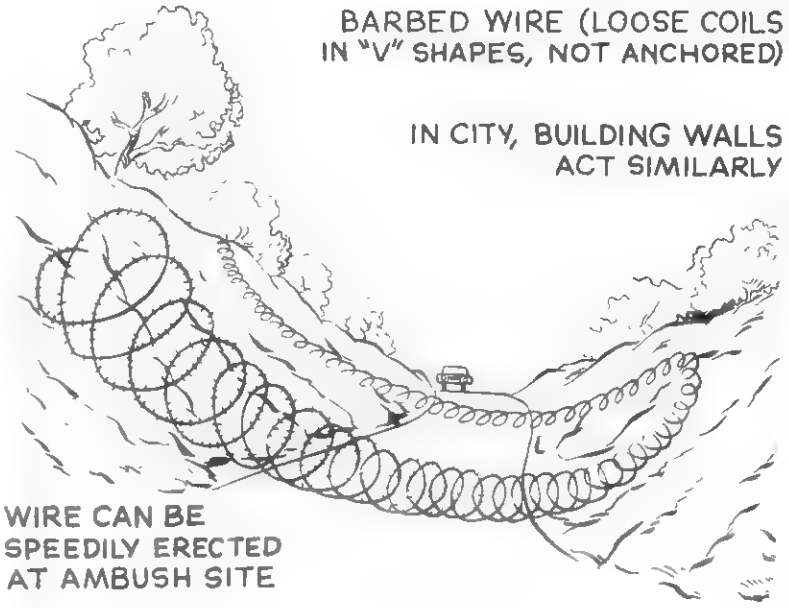


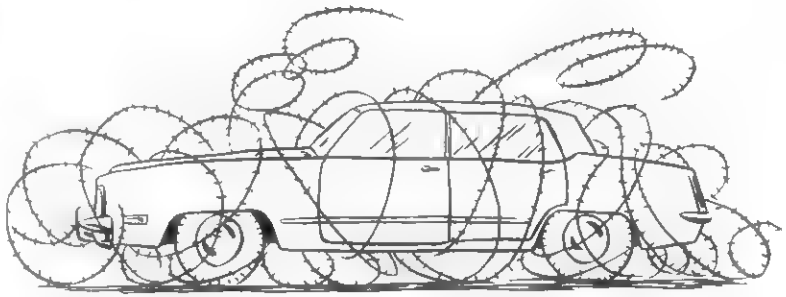
EQUIPPED WITH SIDESWIPER CUTTERS, SCREW CONE LOG SPLITTER (FOR SHREDDING TIRES, EVEN RUN FLAT TYPE) AND FORK LIFT FOR WINDOW RAM AND TRACTION DENIAL.



FOR *SHORT* DISTANCE DRIVING *ONLY*, A RAMMING VEHICLE CAN BE PREPARED BY MOUNTING THE RADIATOR BENEATH THE ENGINE AND PLACING A CONCRETE SLAB IN THE RADIATOR WELL.

THE LAST TANGLE TECHNIQUE





WIRE IS DRAGGED ALONG & WINDS AROUND WHEELS & MOVING PARTS

CABLE CAR

armored car. The car then could be hoisted by the tow - truck and taken away from the scene for disposal, occupants not excepted. Again, this is subject to scenario.

Other ruses might be used to get the car to stop: fake accidents, school crossings (paint your own pedestrian crossings) complete with guards and kids or old ladies (team member actors); fake emergencies , such as a hydro line down (cover for the arresting cable) fake hostage situation, bank robbery or sniper allowing team to be disguised as SWAT team with the weapons in evidence being turned ultimately against the Target vehicle. Burst water main could account for traction denial fluids on the road and crews equipped with jack - hammers and pick - axes; a burst gas main could explain crew with gas masks and fire - fighting equipment, etc., etc.

Stopping the car is the most important phase of this operation and proper planning precludes failures in this regard. If the car is not stopped then the attack cannot be launched and a none situation will be the result.

British army truck blown up by command detonated mine laid by the IRA. Driver was killed. Photo: courtesy Ministry of Defense.

Discussion Five:

The Assault Team

Upon being immobilized the armored car becomes subject to attack by a well rehearsed cadre which will winkle out the Targeted VIP. The armored vehicle is really a tin can filled with humans and it is only necessary to heat and serve. Just as the molotov cocktail has been the nemesis of many tanks in past it will be continued to be used in the future.

Now these vehicles are protected, ostensibly, from cocktail weapons by being rather tightly sealed and by means of the overpressure internal atmosphere. This requries that a large quantity of fuel be used against the vehicle. The glass gallon jugs with Kotex igniters should be hurled against the vehicle. A preliminary "wetting - down" should take place where the gallon jugs sans wicks are used. Once ignited the heat from this incinerating process will burn through the seals and do the beseiged no end of no good.

Alternatively the gas cap could be removed. (Locking types can be pulled off with a dent - pulling tool) and the gas siphoned through a clear plastic hose (so as to see the fuel coming) and be allowed to puddle under the vehicle so as to cook in its own juices.

Magnetically attachable thermite wells should be placed on the roof of the vehicle and a rapid burn through is to be expected. The resulting shower of sparks and fumes should drive the Target from the car if it doesn't he will surely die. (This bring up an interesting point, by making it so difficult to kidnap him the terrorists have no choice, but to assassinate him). Once the vehicle has been holed by the thermite, a high pressure hose could be brought to bear on this hole and the car filled with water from this source giving the VIP the choice of leaving the vehicle or being drowned. Another alternative would be a gas hammer attack, which would fill the car full of tear - gas and in such close confines would be lethal also.

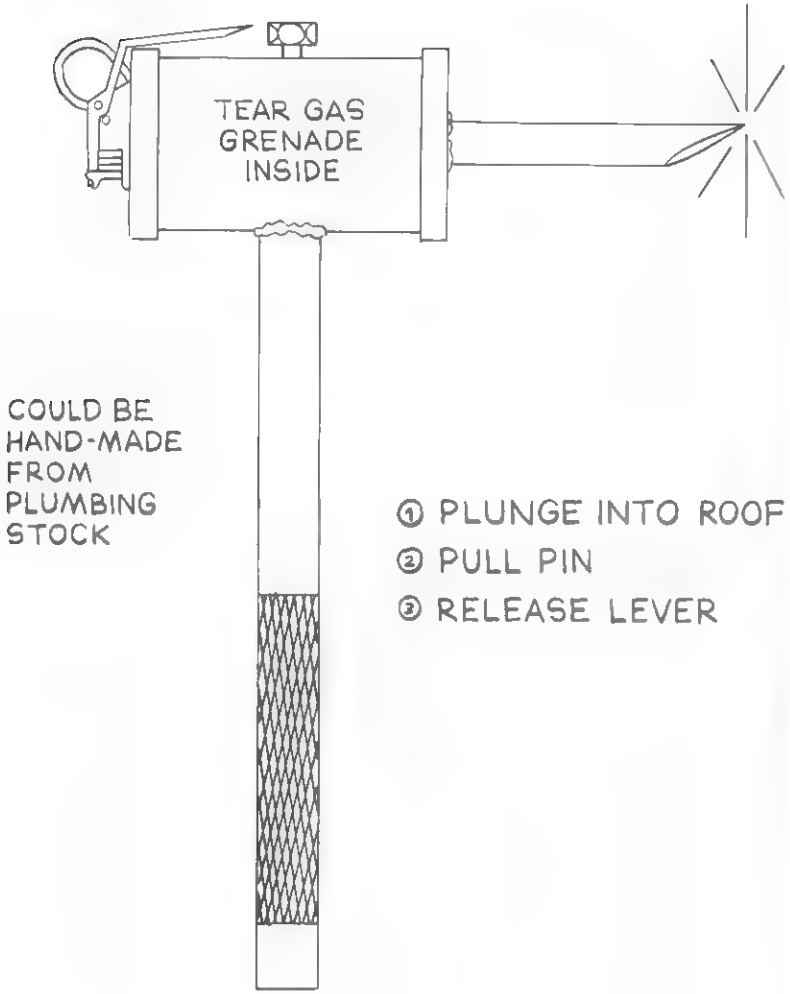
USING SMALL HAND PUMP AS A SIPHON, SPRAY TARGET CAR WITH ITS OWN GAS.

LOCKING GAS CAP CAN BE PRIED OFF!

RACE CAR SPEEDY TOPPING OFF TANK COULD BE USED TO QUICKLY DUMP FUEL ON EXECUTIVE ARMORED CAR.

TEAR GAS HAMMER

PENETRATES AUTO SKIN — RELEASES LETHAL CONTENTS WITHIN CONFINES OF CAR.



The windows are subject to the attacks outlined earlier and CO2 from fire extinguishers could also lower the temperature of the laminate and allow for increased frangibility.

Visualize the armored car as you might any other involved in an auto wreck. The use of emergency equipment, such as gas operated K-12 Kelly Saws with their high speed abrasive cutters can cut the doors off even armored vehicles. The hydraulic wedges and push and pull jacks can turn the car inside out. Portable cutting torches would make short work of the lock mechanisms and the pillars and posts of the vehicles's frame. (In fact the whole "hit" could be directed under the the guise of an auto wreck and the attending crews and emergency vehicles props in the production).

With compressed air equipment in the wings, jack - hammers could be used on the roof and panel rippers on the doors. The Kevlar once exposed could be cut away and the vehicle holed and opened in short order.

Due precautions are to be taken against defense measures emmanating from the vehicle. By blinding the vehicle initially a great deal of the effectiveness of these devices might be lost. Pistol ports if they are opened up only serve as points of entry for incendiary gas and oil mix. Electrification of the frame will be negated by a massive counter charge of high voltage equipment such as generator equipped vehicle suppluing power or a tap from an arc welder. Rubber gloves could still be worn as a precaution. Their use of tear or nauseating gas should be worn as a precaution and their use of tear or nauseating gas sould be anticipated and gas masks provided for as a matter of course. These would serve a double purpose in disguising the members of the team.

It is also to be expected that members of the VIP bodyguard will be equipped with some form of body armor so fire must be directed towards their heads and upper thighs. Even if it were possible to only wound them to incapacitation, their use of body armor leaves no other choice.

Members of the Stopping Team will once the assault is in progress provide covering fire and otherwise establish a zone of security for the attack. They should be concerned with events occurring outside of the assault locus and dissuade onlookers and attempts at rescue.

Long Range Armor Piercing Bullet. (Necked down .50/.30 cal. with tungsten carbide core.) Such necked down cartridges have been made by long range bench rest shooters. Armor piercing bullets have an inherent stability and are used to maintain accuracy over the distance. The potential use against vehicles and body armor is of prime concern here. USAAF photo.

Discussion Six:

Withdrawl Team

The hope in all crime from petty theft to murder is to do it and get away with it. With the extraction or elimination of the targeted VIP from the armored car it is necessary that the security element (Stopping Team) protect the getaway vehicles. These may be of any number or description depending upon the nature of the assault. A possible scenario could involve a fleet of three dump trucks, the first and last with a load of gravel and manned by the Stopping Team and the middle truck carrying the Assault Team and hostage/corpse. The walls of the box being reinforced with an inner wall with gravel pebbles forming an effective armor lining.

Any rescue elements giving chase could be disuaded by the dumping of materials on the road or the vehicles themselves. The load would also act as bullet proof material for the crews and further protection could be had by having the rubber mud flaps replaced with steel panels to protect the tires from shots behind. Once the load is depleted the front and rear trucks could change positions and fresh roadblocks strewn out.

Any further progress "down the road" is left to the planners of exfiltration as the demands of either assassination or kidnapping take differing courses from here on out . . . .

Other withdrawl tactics might involve a running gun battle through the streets resulting in mass confusion and hysteria. It might occur that the surprise is total and after the assault the teams could simply walk or drive away from the area. Two extremes with the reality most likely being in the middle ground. Much use has been made of the team concept in these discussions and the impression engenders ideas of a large number of people taking part. This is not the case. The Stalkers could be members of the later Stoppers or Attackers. The Attackers provide cover for Stoppers; once their task is accomplished the Attackers move in and the Stoppers pro-

vide a zone of security for them to operate with in. Both elements unite to form the Withdrawl Team. Command decisions are made by the officer in charge of the phase of the action and he is obeyed by all elements until his task is complete and the next phase officer takes over. It is a situation requiring a great deal of initiative and innovation and members should be able to assume any role demanded by circumstances.

Withdrawl cannot be mentioned without bringing up the subject of retreat. If a complete balls - up occurs and everything goes wrong it is only circumspect to plan for the happening and escaped routes gone over with a view to transportation, medical supplies, extra weapons, and false identity papers. While one must be resolute in attack there is no point attempting the impossible under degenerating circumstances and there is always another way and another day.

The VIP could be taken from the scene of the "auto wreck" by a commandeered ambulance, which would serve double duty as a First Aid post and could also transport wounded team members. Being an emergency vehicle it could make full use of its sirens and flashing lights to proceed at great speed from the area. Additional ambulances, rescue trucks, fire engines and motorcycle outriders could form the exfilitration procession. Again it's a question of initiative, daring and determination.

Discussion Seven:

Communications Negation

As the knocking out of the car's electrical system by massive current charge has been mentioned earlier, it is also necessary to consider that the car might be equipped with an independent power source for two - way radio communication. These rigs are normally placed in the trunk, directly behind the rear seat. It is therefore necessary to consider knocking these out with thermite wells also. As an added precaution place wells on the hood to eat through to the battery there.

All external antennas should be snapped off. (The antenna would provide a direct contact with the electrical system and would be a good place to attach the booster cable for knockout with the other grounding cable attached to the frame). What is to be hoped is that the electrical system fuses would blow, knocking out communications, alarms and electrification.

The use of high - pitched alarms by the vehicle would mean very little to the attackers if they were manning emergency vehicles as their alarms could be operating in the form of sirens anyway. If the location of the alarm is known, it may be possible to mute it with a shaving cream spray or foam dispenser.

The primary defense against communication would be the element of surprise and the swiftness of the assault. The occupants may be kept off guard long enough during a phase of initial shock to prevent any moves on their part at all.

In all attacks of this nature however, it must be assumed that some form of panic button communicator has been activated and that help has been summoned. Rather than live in hope that the attack will be 100% successful, it would be wise to prepare for countermeasures from the security forces.

Jamming of the radio would be possible if it could be determined which frequencies their sets operate on. By bringing an unshielded transmitter close to the vehicle and using a

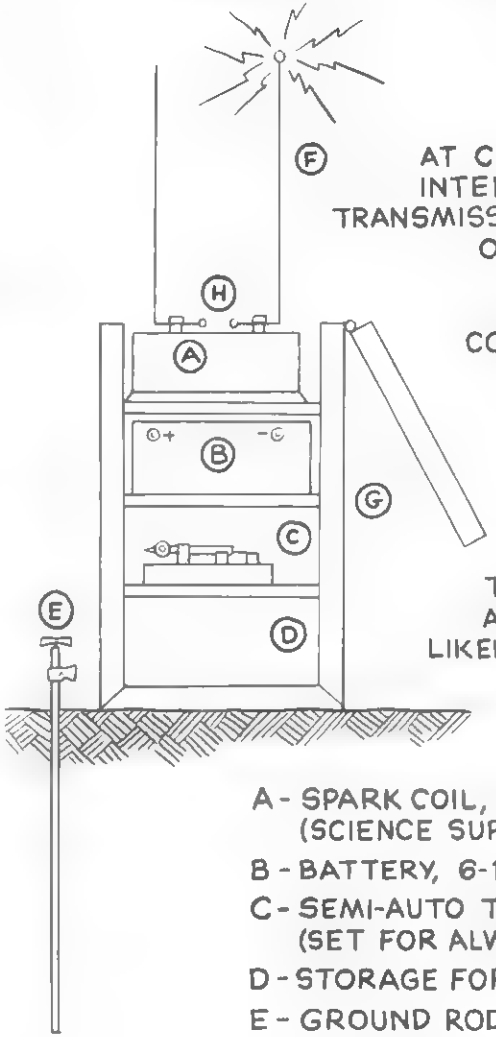
"bug" or semi - automatic telegraph key, communication through the vehicle's set would be seriously hampered by the static from the spark coil of the elementary transmitter.

Everyone knows how difficult it is to receive radio signals when passing under a bridge or overpass. It might be possible to mount the attack in such a location where the constructional iron and steel of the bridge acts like a Faraday Shield* and knock out the signals. *(It has been alluded to earlier and could be portable).

The trunk transmitter might be attacked directly by using a lock puller on the trunk lock and then inserting a screw driver to open the lid. With the lid up, the set can then be smashed. Such a technique would have to be simultaneous with the stopping of the vehicle and when concluded an incendiary bottle could be thrown against the back rest's rear mountings. The fumes from the ignition and burning spare might well drive the occupants from the car. Thermite well placed over tank here will burn through it even with "explosion - proof cells."

Depending upon how earnest an attack is planned one might consider hi - jacking a T.B. or Silicosis Chest X - Ray Vehicle and removing the shielding from the X - Ray machine. If the machine is cranked up in this condition large scale electrical interference will be propagated effectively jamming radio communication.

STATIC RADIO KIT SIGNAL-JAMMER



A - SPARK COIL, MODEL "T" TYPE (SCIENCE SUPPLY)

B - BATTERY, 6-12v AUTO

C - SEMI-AUTO TELEGRAPH KEY (SET FOR ALWAYS SENDING)

D - STORAGE FOR EXTERIOR ITEMS

E - GROUND ROD

F - ANTENNA

G - PACKING CASE

H - SPARK GAP

Discussion Eight:
Miscellaneous Assault Tactics

A two hundred gallon tank of the standard storage type could be trailer borne to or emplaced at the ambush location. A two - inch outlet pipe should be attached and the tank filled with a mixture of gasoline and oil. This would cover an area of road fifty feet long by twenty feet wide. The mixture initially is left unignited to serve as a slippery traction denial compound and upon stopping the vehicle by a suitable barrier the mixture is then ignited. The two inch outlet will provide by gravity feed alone enough fuel to keep the road burning for nearly six minutes, resulting in the destruction of the vehicle.

If an open touring type car or convertible is being used by the dignitary, (not as bad a proposition as might be first thought since the vehicle can be defended by security people with clear field of fire and allows for an instant response to attack) then the primary target should be the driver in order to bring the vehicle to a halt. Some believe that Oswald's "wild shot" was in fact directed at the driver and with the limo stopped he could then take his time aiming and firing.

A Vetter Mini - Lifting Bag (tm) if placed centrally under a vehicle will lift all four wheels off the ground effectively, immobilizing it. With the rear wheels clear off the ground, traction is also denied. The bag could be emplaced like a mine and is inflated instantly by compressed air tanks. (It could also be pulled across the path of a vehicle in a daisy - chain fashion using the air - line as lanyard). It could be thrown under the vehicle at a stop or roadblock. The bag can be used in another way to tear open the doors.

Vehicles can be stopped expediently by stuffing a raw potato over the exhaust pipe suffocating the engine.

Sugar in the gas tank is an old wive's tale, but is seldom effective as a gas contaminant. Unless you have pounds and pounds of it, it simply won't work. It forms a sludgy sedi-

ment in the tank even in large doses and harms the engine very little.

Most locking gas caps can be opened with a ten key set and although beyond the scope of this presentation, the V-40 Mini - Grenade with the pin removed and the lever held down with an elastic band could be deposited into the gas tank. The gas will eat through the band firing the device. Use against "explosion - proof" tanks.

By securing some metal auto ramps to the road bed at a curve or bend in the road, (painted flat black, for use at night or dusk) the target vehicle will be induced to overturn or use control. Most armored cars are prone to overturning due to increased weight armor imposes causing the center of gravity to equal its track width (wheelbase) and most curves are a risky proposition even at the best of times never mind skidding while braking to avoid obstacles.

Garbage bags filled with acetylene gas popped prior to the armored vehicle entering the ambush site will cause the engines to stall by varying their compression and combustion rates. A vehicle plowing into a few rows of these bags before hitting hurdles or wire of a roadblock would be seriously incapacitated and the acetylene could then be added as fuel to the fire if desired. (Oxy - acetylene cutting torches are a necessity as they could be used to cut loop holes into the armor to polish off the occupants or to extract a hostage).

Continuing the previous theme, the employment of a thermic lance should also be de riguer in this line of work. Easily constructed by stuffing a length of 3/4 in. pipe with a core of a dozen welding rods (11 steel, 1 aluminum magnesium alloy0) and coupled to a bottle of oxygen. The pipe is heated to incandescence with an oxy - acetylene torch and the oxygen switched on. It becomes self - sustaining and resembles a sparkler (also a form of thermite). The intense heat generated by this device will melt the toughest armor and pierce it in a few moments. (5,000 to 10,000 degrees F.). Its speed of cutting is so surprising that one must be cautioned against applying it too vigorously against the target lest one pentrated the occupants also. A miniature pistol version of this device is commercially available, but strictly controlled and is called the Rocket Torch. Commercial lances are

similarly structured and come in 10 ft. lengths and are used in foundrys to open clogged furnaces. (Most make their

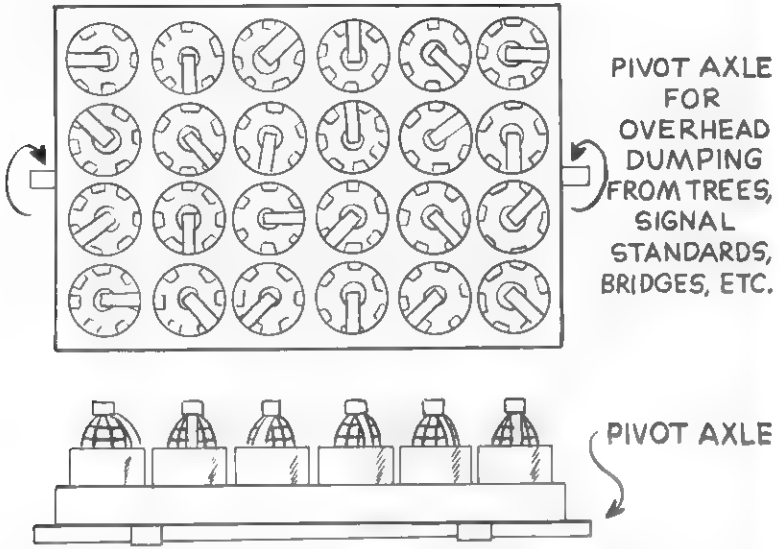
Without carrying the allusion of a tin can too far, a can opener could operate against most armored executive cars. Such a can opener needs to be two to three feet long and of scaled up proportions to the old - time kitchen gadget. The sharpened point and beveled cutting edge shears through the steel skin of the vehicle and can pop seams and rip panels quite handily. Scoffers should seek out a retired "peterman," yegg, or safe - cracker.

Overpasses provide a perfect place to launch aerial assault on the vehicle. By loading a considerable weight of materials onto a scaffold on the opposite side of the bridge that the vehicle will be passing under the scaffold could be quickly released either to instantly block the road or crush the vehicle. Even armored glass windshield is no protection from a load of building blocks dropping onto the car from the overpass. The glass may not break, but will certainly pop inwards upon the hapless driver.

Dig an anti - vehicle trench across the road. Far - fetched? One only has to think of the number of different muncipal crews who do that everyday in their quest to tear up city streets. Gas, cable, telephone, sewer and road maintenance outfits dig trenches in city streets and assault teams can too. Who's going to question their right to do so when no one questions the "regulars." A "men at work" sign, a backhoe and a couple of laborers and a flagman and you're in business excavating the road. Regular traffic can be waved through or able to cross over the trench by means of steel sheeting; the target vehicle suffers a different fate by crossing over a substituted cardboard sheet, the auto bottoming out with the front wheels in the trench. Use the backhoe to open the limo . . . If any City Engineer gets nosey, cold dick him.

For quick opening of car locks, drive a blade screwdriver (square shanked) into the keyway with a hammer, apply a wrench to the shank and torque the lock in the opening direction. The casing of the lock splits under this treatment allowing the pins to either drop down or pop their retainer cover, the shearing torque of the wrench breaks and twists the pins and the lock will turn.

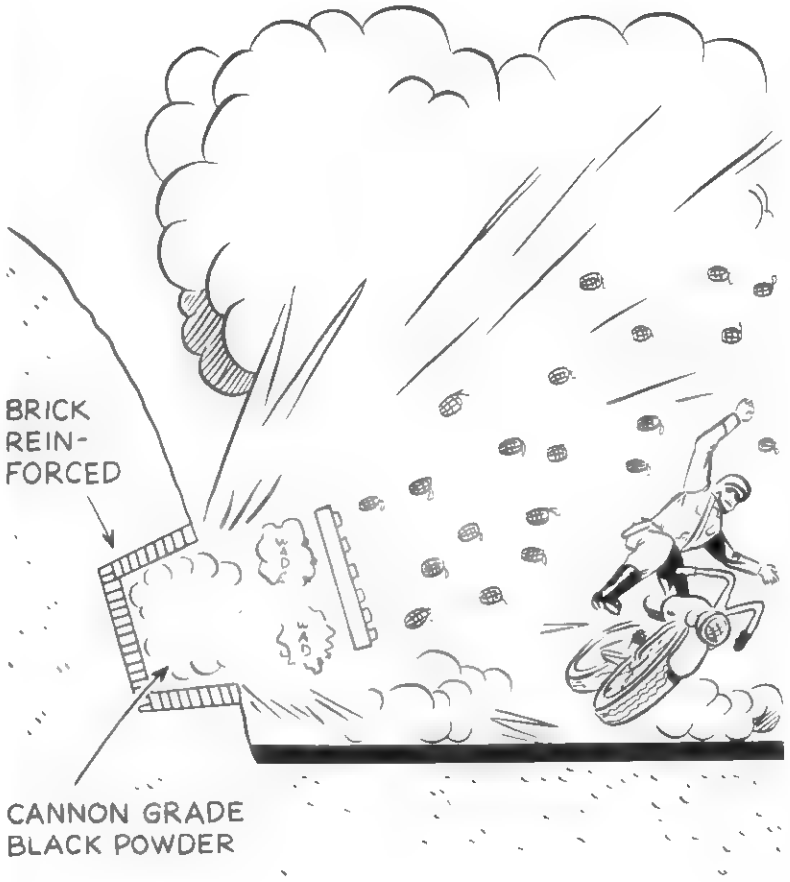
ESCORT DENIAL



CASE OF 24 HAND GRENADES WITH PINS REMOVED, LEVERS HELD ON "SAFE" BY TIN CAN HALVES.

ESCORT DENIAL WEAPON

FOUGASSE PROJECTION OF CASE OF 24 HAND GRENADES



WASH TUB MORTAR BUILT INTO EMBANKMENT

It is not fair to assume that since one layer of armor will resist impact another layer, two thicknesses, will resist double the impact. It has been found that two layers closely apposed scarcely more resistance than the single plate.

By reversing the service bullet a better punching effect is to be had against armor. Note: First true AP round invented by Nordenfelt in 1880's years before the appearance of the tank. (Chinn, Vol. 1) Similar bullet could be made by modern reloaders.

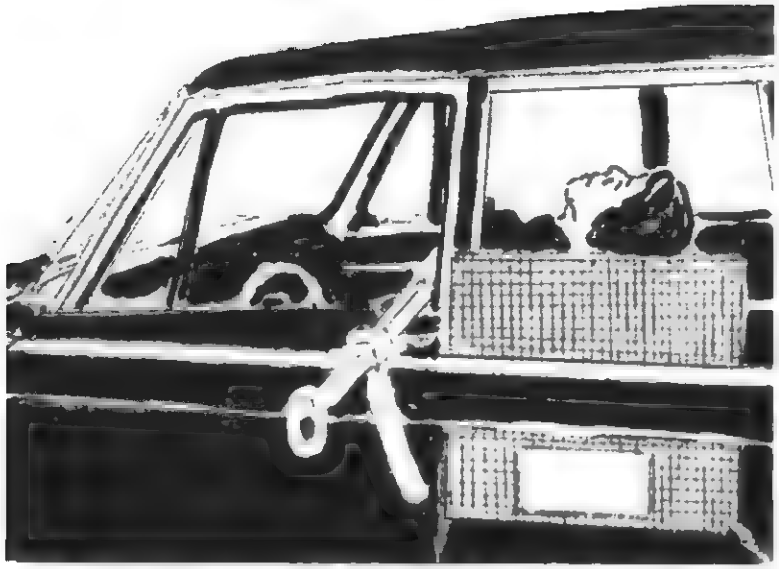
Thermite is composed of iron oxide and aluminum powder. It may be obtained as a commercial material or be improvised by mixing these two ingredients (three parts iron oxiode and two parts aluminum powder, by volume). This incendiary is used to attack armor by application of localized heat. It causes holes to be burned through the metal and molten metal to drip into the interior.

Thermite is a mixture of finely divided aluminum powder and iron oxide, more preferable is magnetic iron oxide. When reaction is initiated by a strong heat (about 2800 Deg. F., by means of first fire, blow torch or electrical resistance) the aluminum powder reduces the iron oxide to free iron by direct oxidation of the aluminum to aluminum oxide. The reaction may take place in the absence of air so that smothering techniques to extinguish it are ineffective.

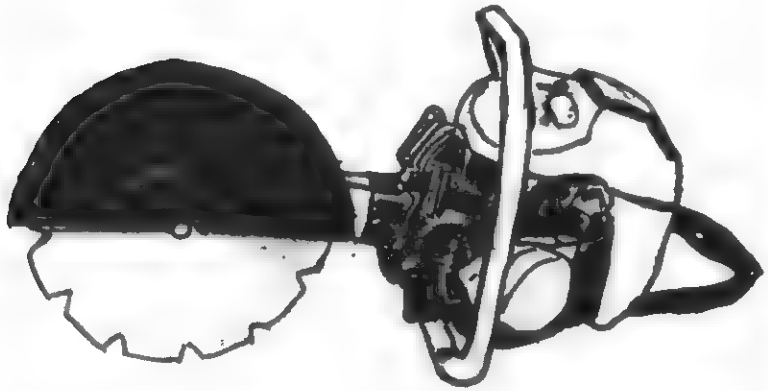
THERMITE

I. To Produce
   - A. Magnetic iron oxide (iron rust or hammer scale of pig iron).
   - B. Aluminum powder (may be filings or metallic sparkle additive of paints).
   - C. Potassium Permanganate (or course gunpowder) 1.From Pet Store; Aquarium Treatment
   - D. Wax
   - E. Tin Can
   - F. Cardboard

II. Preparation
   - A. Grind the iron oxide to a fine powder.
   - B. Pour equal volumes of the oxide and aluminum powder on a large sheet of paper and mix throughly. Mix the amounts with reference to the size of the can being used.
   - C. Line the vertical surfaces of the can with cardboard (or to do a more professional job, use a fireclay or ceramic liner).
   - D. With a spoon carefully ladle the thermite into the can. (Leave an inch from the top.) It is important not to pour the thermite in as the heavier granules would fall first making the procedure useless.
   - E. Tamp the mixture gently into place with a rod of the dimensions of the sleeve's i.d.
   - F. Use two parts potassium permanganate with one part aluminum powder to make about four tablespoons of first mixture. Package this in a small, tight wrapper of paper.
   - G. Insert this packet into a hole made in the center of the thermite surface.
   - H. Seal the top of the container by pouring molten paraffin wax over it one quarter of an inch thick.
   - I. Attach circumferential magnets around the can and when ready to use insert a wooden skewer into the first mixture and place some cannon fuse into the resulting hole, tape the length of fuse into place. Upon initiation, reaction time is approximately thirty seconds.



Velter Air Bags (tm) rips off car door by bearing against beam & hook clamp. This, pillow like, inflatable device can be put to many uses. Together with a portable air tank it can exert great force in many difficult places. Author's photo.

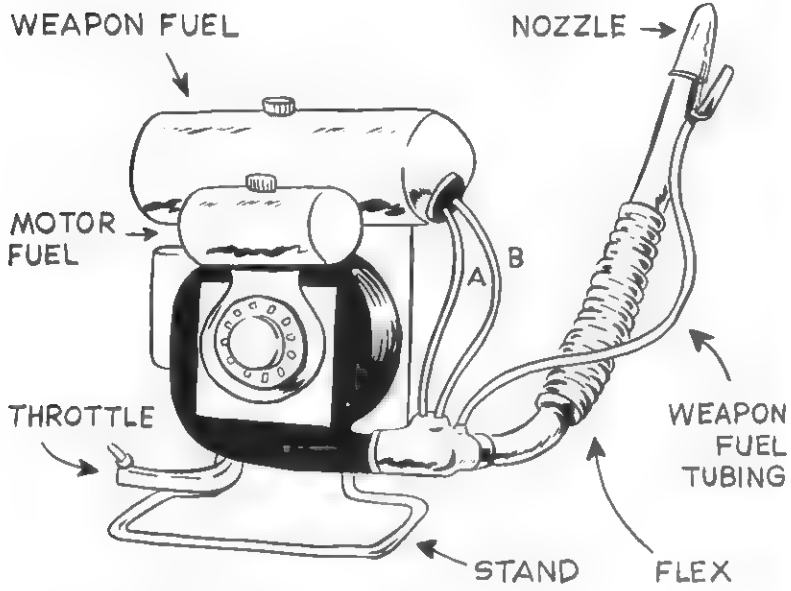


Kelly Saw (trade name). Equipped with a metal cutting blade, it is portable and can be used to "open up" a targeted vehicle. Photo: courtesy Safety Supply.

QUICKLY RESCUE TRAPPED VICTIMS

Catalog illustration showing the Kelly Saw in action during a rescue situation. Along with the Kelly Saw, any similar tool designed for fire department and rescue squad usage could conceivably be used in an attack against an armored vehicle. Photo: courtesy Safety Supply.

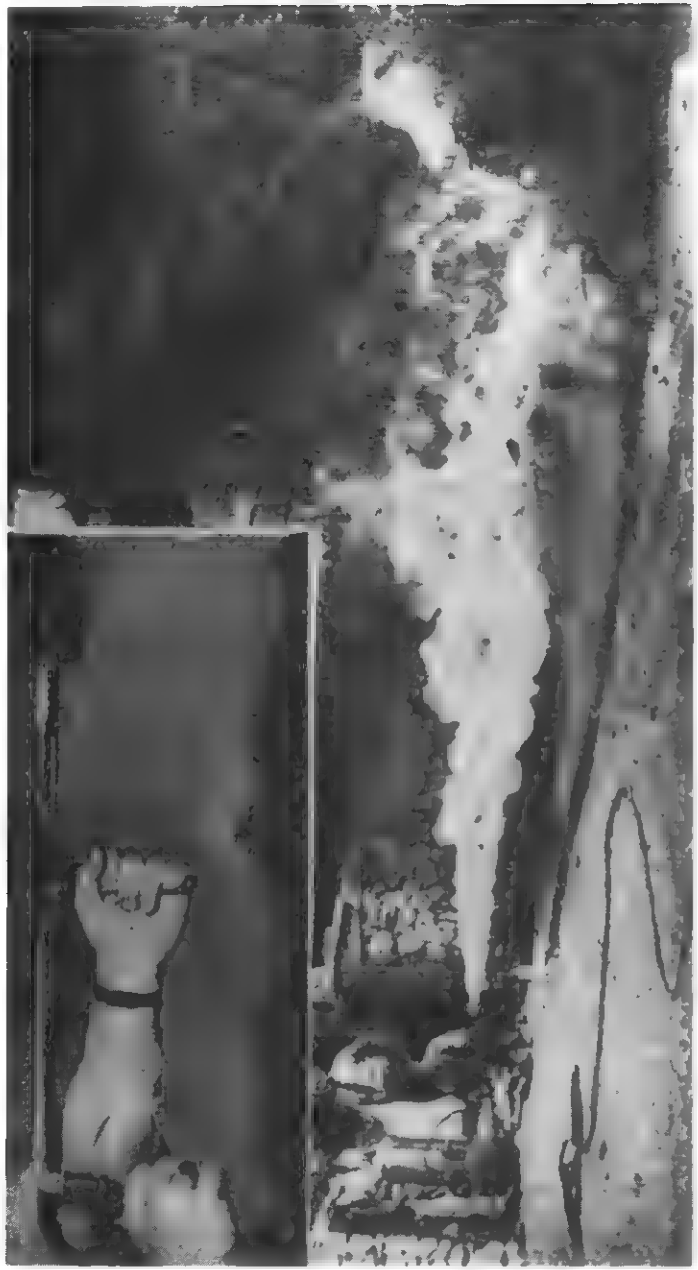
GAS POWERED (BACK PACK) FLAME THROWER



A-PRESSURIZED AIR
B-WEAPON FUEL LINE

COMMERCIAL 2 CYCLE BACK BLOWERS CAN BE CONVERTED TO FLAME THROWERS. RIG IS RECOIL START, HAS 30 FOOT RANGE. AFTER WETTING DOWN TARGET WITH GASOLINE, IGNITE BY FIRING FLARE GUN AT IT. (RIG PRICE: ABOUT $400.)

V-40 Mini-Grenade. With the lever held down by a rubber band and the pin removed, it makes an excellent time delay weapon when inserted into the gas tank. Author's photo.



Homemade "Flame Thrower" consists of a tank of butane and a pressurized tank containing a mixture of diesel fuel and kerosene. Butane is used for pilot light in the homemade nozzle. The pressurized fuel can be easily ignited and thrown up to 60 feet. This unit was designed to be used in the back of a pick-up truck for weed and brush control.
National Park Service photo.

Discussion Nine:

Bombs & Mines

Explosives have had an important part to play in automobile destruction and are much in favor by the crime set. The traditional three sticks of dynamite in front of the fire wall and the wiring of detonator to the coil and ground have been around since the Twenties and tactics have been instituted to the limit this attack.

A big forward was the locking hood which denied rapid access to the engine compartment. Many cars have vehicle alarms to also offer a measure of protection to the big leaguers in the executive field. There are also remote starters whereby the engine is started several minutes before the driver is to enter, which is a counter to the ignition switch activated bombs.

It appears then that time delay mechanisms would have to be added to the circuits. A simple expedient would be a clothes - pin switch with a wafer of candle wax between its jaws and when the engine reaches a predetermined heat the circuit is closed and the bomb exploded. This would correspond to the warm - up time of the remote ignition device.

Another bomb was rigged from a garage door wireless signal switch and the bomb fired at will remotely when the target car passed by.

Command detonated mines have met with much success both in Spain and in the Middle East. When the target car passes an explosive laden vehicle, culvert or under road mine is fired electrically and the massive charge consumes the vehicle.

The big drawback with explosives is their acquisition and it would be foolhardy to call for large quantities of plastic explosive when the hope or chance of obtaining same is virtually nil. They can be made it is true but at great effort and danger.

It is worth remembering that for almost five hundred years much of Europe was fought over and castles and redoubts destroyed with gun powder alone. It has been downplayed as an explosive since the advent of the nitro powders, but it can do the job even if large quantities of it are required, because large quantities are available through the black powder boom of recent years.

The petard, which is often viewed as a historical curiosty, is in fact the forerunner of the shaped charge and its application and bell like shape further sustain this contention. It was sufficient to knock down castle gates. Go to Europe and look at a castle gate some time and be awed that anything short of a tank could knock it down. These petards can be constructed again and used against the armored structures of the executive vehicle and do a creditable job.

Most of the modern armored cars have reinforced undercarriages and a large bomb blast plate attached to the floor. It is of such good construction that unless the vehicle can be engulfed by the mine then alternative sitting of the charge has to be considered.

It is also worth remembering that shaped charges require stand - off and a large shaped charge could be stood off a couple of feet and still penetrate the vehicle. A truck with shaped charges along its side could approach the vehicle and be touched off. As the explosive is highly directional in this mode the bulk of the power is directed against the target and only light damage is suffered by the command vehicle. The explosive use in the shaped charges is Picric Acid which can be prepared informally.

The best grenade explosive is blank powder or modern double based rifle powders. Being a low explosive the fragments tend to break up in large chunks rather than blown to harmless dust by high explosive. The biggest problem with ersatz explosives such as ammonium nitrate and the military and commercial compositions of dynamite is the need for a detonator. By mixing together equal parts of nitric acid and mercury in a wide - mouthed glass and allowing it to stand for 24 hours in a cool closet, crystals will have formed, which should be washed with a little nitric acid and drained resulting in fulminate of mercury, which can be initiated with an

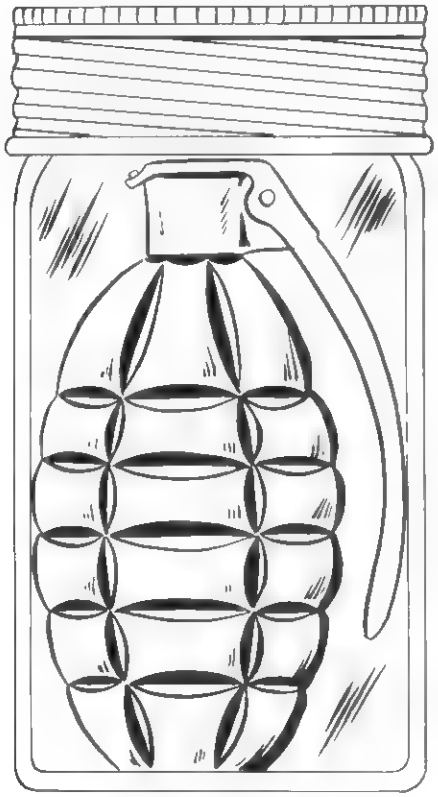
AG-1 flashbulb or fuse train. The Bulls Eye powders when detonated act as high explosives.

A car engine is actually an explosion container. It is the controlled explosion of a gasoline and air mix that provides the power to drive the car. By rigging up an extra spark plug to the existing wiring, the spark plug could be attached to the gas tank and explode the gas fumes therein. The beauty of this rig is that the post explosion investigation doesn't reveal explosive devices or materials that wouldn't be found in the car normally.

If the conditions are dry enough a weighted fuse could be attached to a dynamite bundle. The fuse would have a cluster of strike anywhere matches taped to the end of it. A remote Starter could be used by the target as this fuse would not ignite until the car started rolling the abrasion of the road bed igniting the matches and fuse, which would dangle down like a grounding chain.

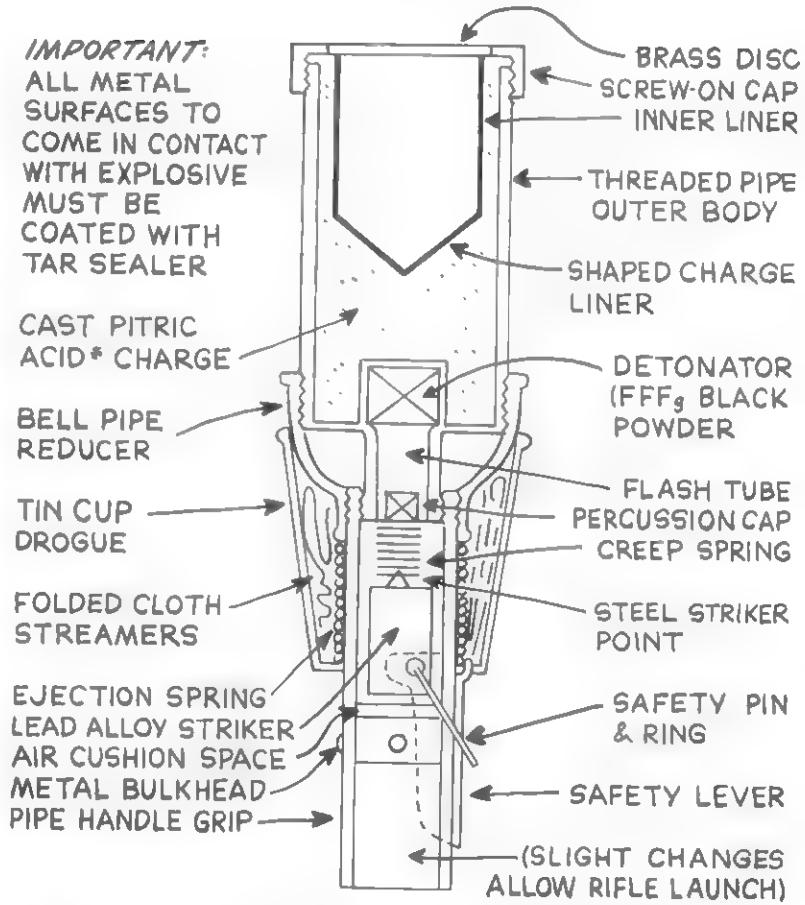
IMPACT GRENADE
(PIN REMOVED)

ZERO DELAY MINE FUNCTION. GLASS ADDS TO FRAG. COULD BE USED WITH COCKTAIL MIX SUCH AS NAPALM.



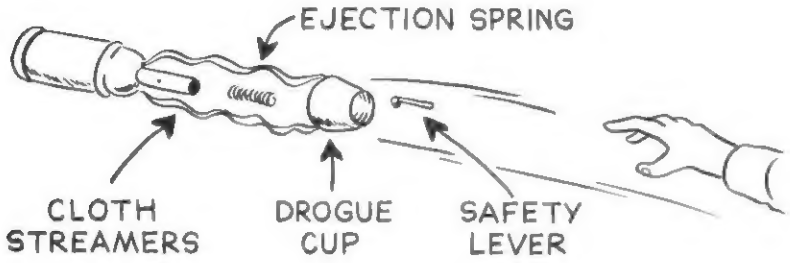
IF GRENADE IS HOME-CONVERSION: FILL WITH BLANK CARTRIDGE POWDER — USE SHOTGUN PRIMER DETONATOR. PROJECTS LARGER (MORE LETHAL) FRAG THAN T.N.T.

HOME-MADE ANTI-ARMOR GRENADE
RPG 43 + ATG #68



*PICRIC ACID PREPARED FROM ASPIRIN OR CARBOLIC ACID WARMED WITH NITRIC ACID, DISTILLED AND ALLOWED TO CRYSTALLIZE. ACID MAY BE MELTED BY MEANS OF DOUBLE BOILER AND POURED INTO GRENADE IN MOLTEN STATE. WAX MAY BE ADDED FOR STABILITY.

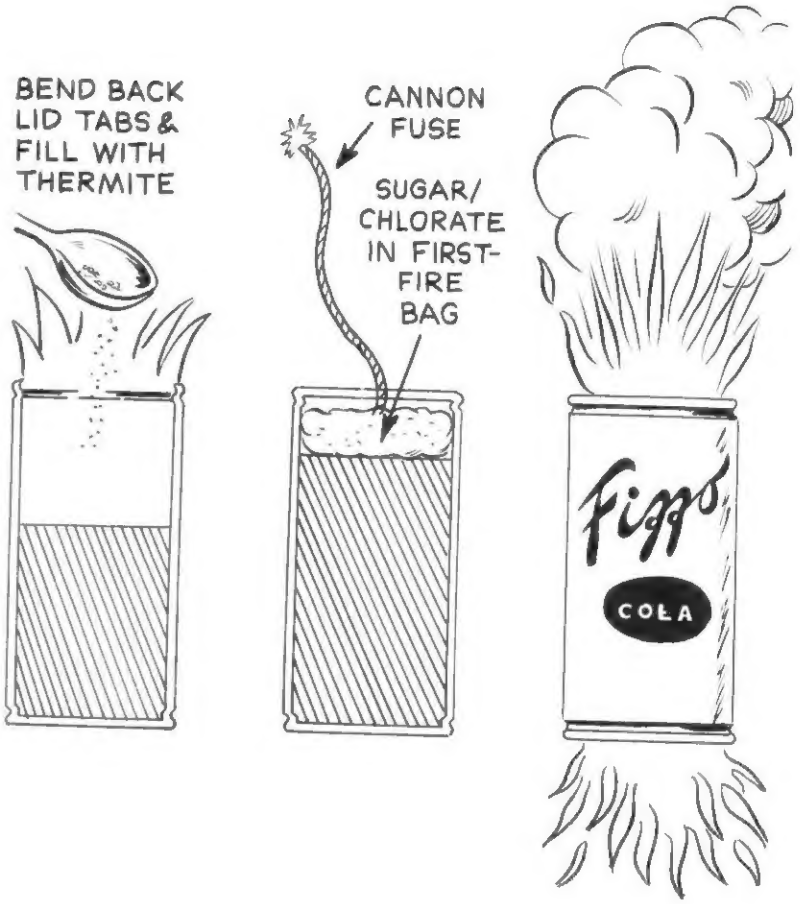
FIELD USE OF ANTI-ARMOR GRENADE



PULL SAFETY PIN AND THROW GRENADE. SAFETY LEVER WILL FALL OFF IN FLIGHT.

AIM FOR WINDSHIELD. GRENADE WILL EXPLODE ON IMPACT.

INCENDIARY HAND GRENADE

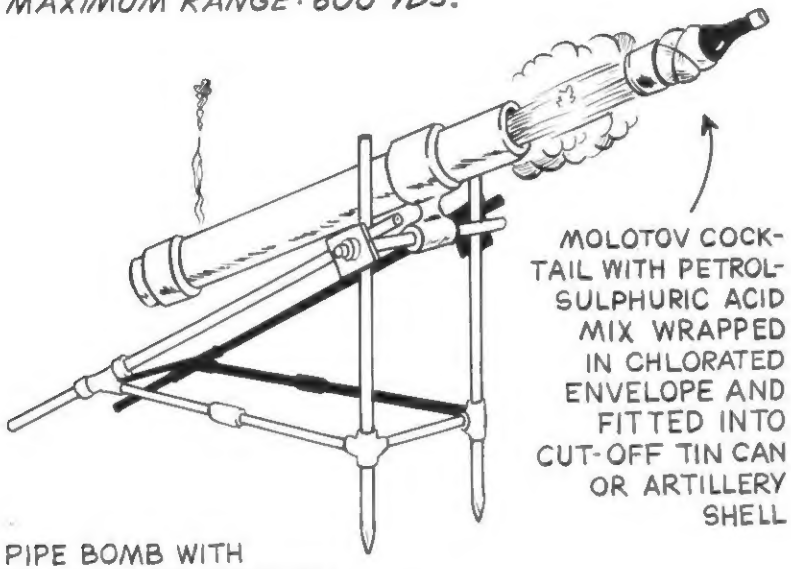


NOTE: THIS DESIGN IS INTENDED AS A FIRE STARTER. IT IS NOT A METAL PIERCING WELL PER SE, BUT MAY HAVE LIMITED USE AS SUCH.

POLISH IMPROVISED MORTAR-HOWITZER-CANNON

WARSAW UPRISING, 1944

MAXIMUM RANGE: 600 YDS.



MOLOTOV COCK-TAIL WITH PETROL-SULPHURIC ACID MIX WRAPPED IN CHLORATED ENVELOPE AND FITTED INTO CUT-OFF TIN CAN OR ARTILLERY SHELL

PIPE BOMB WITH 'BUCK' TYPE CHEMICAL IGNITER CAN ALSO BE FIRED.

BARREL WAS MADE FROM DRAIN PIPE, CARRIAGE FROM GAS AND PLUMBING PIPES. PROVISION WAS MADE FOR BOTH DIRECT AND HIGH-ANGLE FIRING. THE PROPELLANT WAS AN OLD SOCK FILLED WITH POTASSIUM CHLORATE. SULPHURIC ACID WAS POURED GENTLY INTO TOUCH HOLE, EXPLODING PROPELLANT AFTER A MOMENTARY DELAY, ALLOWING OPERATOR TIME TO TAKE COVER.

Discussion Ten: Suggestions For Armored Car Users

One's first reaction to the above topic might be at this stage, "You've got to be kidding . . . ?"

If there is one feeling that the armored limousine engenders as it rolls serenely through the masses of the "great unwashed" it is one of envy. The privelege that power confers on the executive who must be defended from assault by the use of an armored vehicle unwittingly makes him a target for more abuse and resentment that will fester and alienate him from the public. The paradox that grows from this consideration from the odd - balls in the community and yet cannot be seen to be insulting himself in an armored cocoon.

The answer may lie in the use of selectively armored discrete vehicles, rather than in the long, black Caddies that the Important are wont to use. A conservative family type compact car or a van or jeep truck offer some strategic, as well as tactical advantages over the limo.

Consider that the executive might travel in the cab of the company transport. It has the ubiquitous C. B., a bunk and the rise above the road bed to lessen ram attacks and is the type of vehicle the executive "Wouldn't be caught dead in . . . ." My point exactly.

The trailer itself could be rigged as a traveling command post and office and could be luxuriously appointed while outwardly showing nothing of the inner splendor.

The use of emergency vehicles in the assault has been mentioned earlier, but they could be also used in defense. The executive could be whisked about town in an ambulance disguised vehicle that would allow for medical aid if needed and the ability to clear a path through traffic in time of emergency.

The current craze for customized vans can be put to good effect by transporting the Executive in the vehicle. It lends itself to be heavily armored and yet outwardly show little

sign of it. Again C. B. equipment would not look untoward. They can be luxuriously appointed also and the addition of a water bed would give some protection from mines and fire flashes.

By tinting the windows or using the one - way type glass that is popular in vans and R. V.'s privacy is assured, but there is also the important consideration that the opposition doesn't know if in fact the target is riding in it and if they do where he is sitting to get a sniper to hit him.

Most of these vehicles should have an optional or backup form of transportation if nothing but a mini - bike in the trunk or a motor- scooter on the front in the case of an R. V. This will allow for an escape modality should an attack knock - out the prime mover.

The armored cars could be equipped with escape hatched through the roof or bottom of the car or through the trunk in the event of roll - over or similar emergency.

Th dual control driver training vehicles could be considered so that a "co - pilot" could take over if the chauffeur is incapacitated and steer the vehicle through an ambush. Bottled oxygen that functions like the supply in the airliner with the masks dropping from overhead in the event of over-pressure loss that will afford some protection from gas attacks.

A blanket of Kevlar which could be rolled up under the arm of a bodyguard that could be thrown over the VIP if attacked upon de-busing and by carpet - rolling him within this armored security blanket allowing him to be trundled off to cover or safety.

The use of ceramic armor in most of these applications is to be discouraged even though they will stop almost any first round hits. They afford little protection with follow - up rounds in the same location, an attack that is to be expected as armor use becomes more widespread.

The metallic armors add greatly to the weight of vehicles and seriously crimp the style of high speed maneuverability that is necessary when being ambushed. The Maginot mentality can always be end - run.

If the VIP has no desire to be kidnapped under any circumstances including the complete breakdown of his defenses, then one should consider physically locking his body into the vehicle with the keys for release at his destination or carried in a satellite car. This would perclude negotiating for a dead hostage and stop massive extortion demands.

VIP's who travel by car alone might consider a tether or lifeline support system for extra - vehicular activity. If this line is cut or tampered with then an alarm will sound summoning help. This will allow the person the freedom to change a tire or fill - up with gas or telephone, but would be tethered securedly to his vehicle with a twelve foot umbilical.

The heart beat transmitters that transmit the pulses to the hospital of patients could be attached to V. I. P's and provide a warning system to the protective staff and authorities.

In closing let me say that the vehicle is not part of the answer of protecting V. I. P's, but part of the problem.

The King's Armored Saloon Vehicle (circa 1940 - Humber) A luxuriously appointed interior contained within a functional designed exterior — if you need an armored car then, by all means, use an ARMORED CAR. Author's photo.